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EXAMINER

PATEL, ASHOKKUMAR B

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2154

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/787,770

Applicant(s)

SNELGROVE ET AL.

Examiner

Ashok B. Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Application Number 09/787, 770 was filed on 06/18/2001. Claims 1-16 are subject to examination.

Response to Arguments

2. Applicant's arguments filed November 04, 2004 have been fully considered but they are not persuasive for the following reasons.

Applicant's argument:

Each of independent Claims 1, 10, and 11 recites a novel combination of structure and/or steps including, inter alia, modular connection management software including a connection management software proxy for each of a first user terminal, (ii) a second user terminal, and (iii) a telecommunications server. Each the connection management software proxies includes at least one user reactor object one connection agent. Each the connection management software proxies is operable to establish a connection between controlling applications executing on the user terminals, whereby the user reactor objects react to events and, where required, instantiate a connection object and evolve into connection agent which becomes responsible for the connection for the duration and at least the connection. In contrast none of Magedanz and Dynarski (taken individually or in combination) discloses or suggest the unique claimed combinations of features noted above.

Accordingly, the salient claimed features of the present invention are nowhere disclosed or suggested by the cited art.

Examiner's response:

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Please refer to the following rejections of the amended claims.

Specification

3. The disclosure is objected to because of the following informalities: Related arts are lacking their corresponding serial numbers. See page17, line 19, page18, line 23, page 20, line 15 and page 24, line 29. Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claim 12 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. This claim recites computer data signal embodied in a carrier wave, failing to recite any hardware necessary to render the claim tangible.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-6 and 10-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Magedanz et al. (hereinafter Magedanz)(IEEE Publication: "Intelligent Agents: An Emerging Technology for Next Generation Telecommunications?")

Referring to claim 1,

The reference Magedanz teaches a system for managing a telecommunications connection (page 470, left column, fourth paragraph, "smart network) comprising: a first user terminal; a second user terminal; a telecommunications network interconnecting said first user terminal and said second user terminal;(page 470, right column, Fig.6) and

modular connection management software including a connection management software proxy (page 471, paragraph 6.3 and Fig. 8) for each of: (i) said first user terminal, (ii) said second user terminal, and (iii) said telecommunications network, each of said connection management software proxies including at least one user reactor object and at least one connection agent and being operable to establish a connection between controlling applications executing on said user terminals (page 470, right column, paragraph 6.2 and Fig. 6):

whereby user reactor objects react to events and where required instantiate a connection object and evolve into a connection agent which becomes responsible for the connection for the duration of the connection. (page 470, right column, line 1 stating " static agents will be deployed in the system/network", page 470, right column, line 4-9 stating, " which knows the communication preferences of its user with respect to timeinternetworking", page 470, left column, paragraph 1. smart network stating " Agents are stationary entities in the network, providing the necessary intelligence, and are able to perform specific predefined tasks autonomously (on behalf of user or an application and page 471, paragraph 6.3 and Fig. 8).

Referring to claim 2,

The reference Magedanz teaches a system as claimed in claim 14, wherein each said proxy (each static agent residing @ user 1, network and user 2 of Fig. 6, (page 470, right column, line 1 stating " static agents will be deployed in the system/network" and line 10-15 stating "The respective user agents of the involved communication partners, i.e. calling and called parties..... services".) is operable to provide the functionality to represent its owner's interests in managing set up, maintenance and tear down of the telecommunications connection (page 470, right column, line 4-5 stating " which knows the communication preferences of its user").

Referring to claim 3,

The reference Magedanz teaches a system as claimed in claim 2, wherein each said proxy is operable to provide the functionality, to represent its owner's interests with respect to cost and quality of service in managing set up, maintenance and tear down of the telecommunications connection. (page 470, right column, lines 4-6).

Referring to claim 5,

The reference Magedanz teaches a system as claimed in claim 3, wherein said telecommunications network comprises multiple telecommunications networks with varied protocols each of said multiple telecommunications networks having its own connection management software proxy. (page 470, left column, 2nd paragraph stating INAP and CMIP protocols and page 466 paragraph 3.2),

Referring to claim 6,

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The reference Magedanz teaches a system as claimed in claim 5, wherein said proxy object is operable to locate said multiple software agents for execution on devices closest to where they are required. (page 471, left column, last paragraph stating, " The basic goal is bring..... Agents(s)".)

Referring to claim 10,

Claim 10 is a claim to a method of connection management for a telecommunications system of claim 11 as stated below. Therefore, claim 10 is rejected for the reasons set forth for claim 11.

Referring to claim 11,

The reference Magedanz teaches a telecommunications server for a telecommunications system comprising: interconnecting means for interconnecting a first user terminal and a second user terminal; (page 470, left column, fourth paragraph, "smart network) comprising: a first user terminal; a second user terminal; a telecommunications network interconnecting said first user terminal and said second user terminal;(page 470, right column, Fig.6) and

modular connection management software including a connection management software proxy (page 471, paragraph 6.3 and Fig. 8) for each of: (i) said first user terminal, (ii) said second user terminal, and (iii) said telecommunications network, each of said connection management software proxies including at least one user reactor object and at least one connection agent and being operable to establish a connection between controlling applications executing on said user terminals (page 470, right column, paragraph 6.2 and Fig. 6):

whereby user reactor objects react to events and where required instantiate a connection object and evolve into a connection agent which becomes responsible for the connection for the duration of the connection. (page 470, right column, line 1 stating " static agents will be deployed in the system/network", page 470, right column, line 4-9 stating, " which knows the communication preferences of its user with respect to timeinternetworking", page 470, left column, paragraph 1. smart network stating " Agents are stationary entities in the network, providing the necessary intelligence, and are able to perform specific predefined tasks autonomously (on behalf of user or an application and page 471, paragraph 6.3 and Fig. 8).

Referring to claim 12,

Consideration should also be given to this rejection in light of paragraphs 4 and 5 above. Claim 12 is a carrier wave embodying computer readable code which enables a computer to perform the steps of claim 15. Therefore, claim 12 is rejected for the reasons set forth for claim 15.

Referring to claim 13,

Claim 13 is a claim to a computer readable storage medium storing a set of machine executable code, said set of machine executable code being executable by a computer server to perform the steps of claim 15. Therefore, claim 13 is rejected for the reasons set forth for claim 15.

Referring to claim 14,

A system as claimed in claim 11 wherein:

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a controlling application on one user terminal contacts its proxy by opening a channel, which channel locates the proxy using a unique identifier identify a service broker with which the proxy associated (page 468, Fig. 2, paragraph 5.1)

the located proxy creates a user reactor and passes it the channel;

the controlling application sends a message to the user reactor via the channel, identifying the other participants in the connection (page 470, paragraphs 6.1, 6.2);

the user reactor then causes the service broker to create a new connection object that includes a parameter which is a reference to the user proxy and the proxies for other participants to connection object (page 468, Fig. 2, paragraph 5.1; Page 469, paragraph 4.2.2)

the connection object contacts the user proxy of each of the connection's participants and requests the connection agent for each (page 466 paragraph 3.3);

each proxy evolves its user reactor into a connection agent; the connection agents and connection object exchange events and messages (page 470, paragraphs 6.1, 6.2);

the connection object creates a floor object which takes a list of the participant's connection agents and handles negotiation; and the connection agents then send the result of the negotiation to their corresponding controlling applications (page 466 paragraph 3.3).

Referring to claim 15,

A method as claimed in claim 10 wherein:

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a controlling application on one user terminal contacts its proxy by opening a channel, which channel locates the proxy using a unique identifier identify a service broker with which the proxy associated (page 468, Fig. 2, paragraph 5.1)

the located proxy creates a user reactor and passes it the channel;

the controlling application sends a message to the user reactor via the channel, identifying the other participants in the connection (page 470, paragraphs 6.1, 6.2);

the user reactor then causes the service broker to create a new connection object that includes a parameter which is a reference to the user proxy and the proxies for other participants to, connection object (page 468, Fig. 2, paragraph 5.1; Page 469, paragraph 4.2.2)

the connection object contacts the user proxy of each of the connection's participants and requests the connection agent for each (page 466 paragraph 3.3);

each proxy evolves its user reactor into a connection agent; the connection agents and connection object exchange events and messages (page 470, paragraphs 6.1, 6.2);

the connection object creates a floor object which takes a list of the participant's connection agents and handles negotiation; and the connection agents then send the result of the negotiation to their corresponding controlling applications (page 466 paragraph 3.3).

Referring to claim 16,

Claim 16 is a claim to a telecommunications server which carries out the method of claim 15. Therefore, claim 16 is rejected for the reasons set forth for claim 15.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Magedanz et al. (hereinafter Magedanz)(IEEE Publication: "Intelligent Agents: An Emerging Technology for Next Generation Telecommunications?") in view of Dynarski et al. (hereinafter Dynarski) (US 6, 272, 129).

Referring to claims 7, 8 and 9,

Although, the applicant has admitted RTOS as being well known in the art, with keeping in mind the teachings of the reference Magedanz, the reference fails to teach a system as claimed in claim 6, which is further capable of handling multiple communications for a given entity, comprising: a multitasking operating system executing on said system; and said connection management software proxy for said given entity being operable to instantiate software agents require for each of said multiple communications, and wherein a real-time multitasking operating system including a scheduler to administer timely execution of software threads and functions, and wherein each said operating system comprises an operating system having a standard applications programming

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interface (API). The reference Dynarski teaches an invention that relates to the fields of telecommunications and wireless Internet Protocol (IP) network routing. (col. 1, lines 7-8). The reference also teaches the software architecture of call processor card and the software running on the card as being a multi-tasking real time operating system (pSOS+) (col. 10, lines 29-41). The reference also teaches that pSOS+ provides task creation and deletion, multitasking, and timer support (a real-time multitasking operating system including a scheduler to administer timely execution of software threads and functions)(col.10, lines 51-61). The applications programming interface (API) is inherent to operating systems and it is well known to one having ordinary skill in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify and enhance Magedanz by employing the multi-tasking real time operating system (pSOS+) of Dynarski for processing since it provides low-latency interrupt and context switching, task creation and deletion, multitasking, and timer support as taught by Dynarski.

Conclusion

Examiner's note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of

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the passage as taught by the prior art or disclosed by the Examiner.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok B. Patel whose telephone number is (571) 272-3972. The examiner can normally be reached on 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abp

 JOHN FOLLANSBEE
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